RESTRICTED CIRCULATION

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AGRICULTURAL MEMORANDUM NO 449

# RETURN TO CAPACITY, WHEAT & FALLOW ACREAGES, YORKS & LANCS REGION

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Mean return dates were found by taking sample stations for each part of the region (as per Tech Bull 24) and

Weighting w.r.t. total cereal acreage - Rc (where Sl = 1)
Weighting w.r.t. wheat acreage - Rw

and these were compared to the fallow acreage (F) and wheat acreage (W) respectively (in units of 1000 acres).

## Results

| Year | Rc | F | Rw | W | Estimated W |
|---|---|---|---|---|---|
| 1966 | 3.1 | 18.7 | 3.1 | 140.8 | 155 |
| 1967 | 3.6 | 13.9 | 3.7 | 154.4 | 155 |
| 1961 | 4.6 | 16.5 | 4.5 | 155.8 | 166 |
| 1959 | 4.8 | 18.4 | 4.7 | 176.7 | 170 |
| 1968 | 6.5 | 13.9 | 6.6 | 171.4 | 159 |
| 1962 | 7.7 | 10.9 | 7.8 | 181.3 | 172 |
| 1964 | 8.8 | 10.7 | 8.9 | 167.3 | 171 |
| 1960 | 10.6 | 11.7 | 10.6 | 177.9 | 181 |
| 1963 | 12.5 | 11.3 | 12.5 | 153.6 | - |
| 1965 | 17.9 | 9.2 | 18.0 | 182.8 | 188 |
| | | | | Mean error | 7.1 (4%) |

The correlation between log Rc and log F is - 0.88

To estimate the wheat acreage, this formula has been used

$$W = 160.4 + 2.1\,Rw - 1{:}69n$$

where n is number of years after 1959

1963 was omitted owing to heavy winter snows. As spring conditions have been ignored and the total of spring sown wheat is unknown, the fit is not unsatisfactory.

The Rw values for 1969 and 1970 were 2.2 and 8.7 giving estimates:-

| | Wheat acreage |
|---|---|
| June 1969 | 148,120 |
| June 1970 | 160,080 |

Any comments or suggestions on this paper should be referred to the author.

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